

### Remarks

Favorable reconsideration of this application is requested in view of the following remarks. For the reasons set forth below, Applicant respectfully submits that the claimed invention is allowable over the cited references.

The non-final Office Action dated November 24, 2003, indicated that figures 1 and 2 are objected to; claims 1-27 and 29-32 are rejected under 35 U.S.C. § 103(a) over *Bialik et al.* (U.S. Patent No. 5,568,588) in view of *Adoul et al.* (U.S. Patent No. 5,754,976); and claim 28 is rejected under 35 U.S.C. § 103(a) over *Bialik et al.* in view of *Adoul et al.* and further in view of *Sklar* (Digital Communication Fundamentals and Application).

Applicant respectfully traverses the drawing objection at page 2 of the Office Action wherein the Examiner alleges that figures 1 and 2 of the instant invention are “prior art” because they are identical to figures 1 and 2A-2C of the ‘588 reference. In an attempt to support the objection, the Examiner cites MPEP § 608.02(g), which merely states that prior art figures are usually unnecessary in an application for patent, but that they are allowable if properly labeled. This portion of the MPEP supports Applicant’s traversal of the objection insofar as indicating that the drawings are properly labeled because the instant application’s figures 1 and 2 are not prior art. The instant application’s figures 1 and 2 illustrate the invention claimed in the instant application, and significantly differ from the ‘588 figure. The instant figure 1 differs from the ‘588 figure 1, *e.g.*, in that it lacks the “pulse location determiner” 20 and “gain level selector” 24. Further, instant figure 1 has a signal correlator 22, a pulse amplitude selector and different connectivity among the components. Similarly, the instant figure 2 is not merely a “short form” of the ‘588 figures 2A-2C as asserted by the Examiner, but a flow chart illustrating speech processing using the system depicted in figure 1. Because figures 1 and 2 of the instant invention are **not** “prior art,” Applicant respectfully declines the Examiner’s invitation to label instant figures 1 and 2 as “prior art” and submits that MPEP § 608.02(g) would support Applicant’s position that these figures 1 and 2 are properly labeled. Accordingly, Applicant requests that the drawing objection be removed.

Applicant also respectfully traverses the drawing objection detailed at page 3 of the Office Action wherein the Examiner asserts that figures 1 and 2 fail to show every

feature of the claimed invention. Consistent with the discussion above, Applicant respectfully submits that every feature of the claimed invention is shown by way of its figures 1 and 2. The Office Action fails to identify which claim limitations are alleged to be absent from figures 1 and 2, and Applicant cannot ascertain to which claim limitations the Examiner might be referring with this objection. For example, Applicant submits that figure 1 includes structure for each limitation of the claimed system. It is accepted case law that a single illustrated item can be used to correspond to more than one function and that the apparatus claim can list different means for performing these different functions. *See, e.g., Palmer v. United States*, 423 F.2d 316, 320, 163 USPQ 250, 253 (Ct. Cl. 1969). For example, the pulse sequence determiner 25 of figure 1 can implement the functions described in blocks 53 and 54 of figure 2, determining pulse location, removing pulse contribution, and checking if any pulses are left. Without further clarification of the objection, Applicant submits that each of the claimed limitations are shown in figures 1 and 2.

Should the Applicant be confused as to the Examiner's rationale (including any patent-related ruling) thought to support the objections, Applicant respectfully requests that the Examiner explain such rationale (per 35 U.S.C. § 132), so that Applicant would have a fair opportunity to evaluate and respond appropriately. In view of the above discussion, Applicant accordingly requests that both of the drawing objections be removed.

Applicant respectfully traverses each of the Section 103(a) rejections because the Office Action fails to present a combination of references that teach each of the claimed limitations. Claim 1 of the instant invention is directed to a speech processing system including, for example, generating "a plurality of sequences of variable-amplitude pulses, each of the sequences having a different average amplitude value." The Office Action acknowledges at page 4 that the '588 reference fails to teach the above limitations. In an effort to overcome this deficiency, the Office Action refers to the '976 reference without identifying where the '976 reference allegedly teaches the claimed limitations. No correspondence is provided for any of the alleged limitations including, "a plurality of sequences," the sequences being of "variable-amplitude pulses," and "each of the sequences having a different average amplitude value." Without a showing of

correspondence to each of the claimed limitations, a Section 103(a) rejection cannot stand. Applicant accordingly requests that the rejections be withdrawn.

Moreover, the '976 reference fails to correspond to the asserted ones of Applicant's claim limitations. As discussed above, the instant invention involves a plurality of sequences, where each sequence has variable-amplitude pulses. In direct contrast, the '976 reference teaches that there are N non-zero-amplitude pulses in a sequence and each has an amplitude equal to the amplitude pre-assigned to the position p of the non-zero-amplitude pulse. *See* column 14, lines 19-26. Thus, each of the pulses has equal amplitudes, and not the variable amplitudes as set forth in Applicant's claims. Both the '588 and the '976 references fail to correspond to each of the claimed limitations; therefore, the Office Action has failed to present a proper combination of references and the Section 103(a) rejections should be withdrawn.

Further, Applicant respectfully traverses the Section 103(a) rejections because the proposed modification of the '588 reference would appear to frustrate the purpose and operation of the '588 reference. *See* MPEP § 2143.01 (when a proposed modification would render the teachings being modified unsatisfactory for their intended purpose, then there is no suggestion or motivation to make the proposed modification under 35 U.S.C. § 103(a)). A required aspect of the '588 reference's primary embodiment is that each pulse sequence has a single gain level. *See* column 2, line 11. Applicant submits that the Office Action fails to comply with 35 U.S.C. § 132 for failing to explain how the '976 teachings would be combined with the '588 embodiment and, thereby, precludes Applicant from considering and responding to the merits of the proposed combination. Notwithstanding this lack of compliance with 35 U.S.C. § 132, Applicant surmises that the proposed modification is to replace the '588 processing of the plurality of single gain pulses with the '976 reference's equal-amplitude pulse encoding principle. However, the '588 reference fails to teach the necessary structure for producing and using the '976's equal-amplitude pulses which are selected specifically for a pre-established function in a detailed encoding system. The '976 encoding principal would not function properly in the '588 embodiment and, adopting the Office Action's interpretation of the '976 variable-gain encoding principal, the '588 embodiment would no longer have the required single-level pulse sequences. In this regard, the proposed combination would

frustrate the operation and purpose of the '588 embodiment. In view of the above reasons, Applicant respectfully submits that the claim rejections are improper and, accordingly, requests that the rejections be withdrawn.

Applicant similarly traverses the Section 103 rejection of claim 28 over *Bialik et al.* in view of *Adoul et al.* and further in view of *Sklar*. To the extent that the Office Action relies on the rejection over *Bialik et al.* in view of *Adoul et al.*, Applicant's reasons discussed above in connection with that rejection also apply to this rejection of claim 28.

Applicant further traverses the Section 103 rejection of claim 28 because the Office Action lacks compliance with 35 U.S.C. § 132 for failing to explain how the teachings of *Sklar* would be combined with the modified '588 embodiment, and because the Office Action fails to cite any evidence in support of the notion that the skilled artisan would be led by the prior art to implement this asserted combination of teachings. In this regard, the rejection has not afforded Applicant opportunity to consider and respond to the merits of this proposed combination of three different teachings. *See* 35 U.S.C. § 132. Moreover, the proposed modification (to replace the '588 processing of the plurality of single gain pulses with the '976 reference's equal-amplitude pulse encoding principle and also the cited teaching of *Sklar*) would neither correspond to Applicant's claimed invention (as explained above), would frustrate the purpose and teachings of the '588 reference, and would not (contrary to the unexplained assertion in the Office Action) necessarily result in improved output speech quality. Applicant respectfully submits that there is not an iota of evidence that such a combination of prior art teachings has ever been suggested or even considered. Applicant respectfully submits that the rejection of claim 28 is improper and, accordingly, requests that the rejection be withdrawn.

In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any

remaining issues that could be readily addressed over the telephone, the Examiner is encouraged to contact the undersigned at (651) 686-6633.

Respectfully submitted,

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